Tailte Éireann

Ireland's New National Mapping Specification

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Strictly confidential

Surveying Process Flow

Acquire Data

Survey &
Remote Sensing

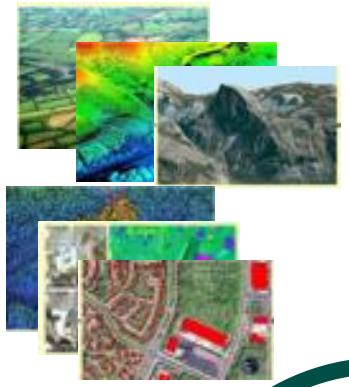


- Image
- Survey

Inputs

Process Data

Raster & Vector
Processing



Workflows/Products

- Pixel Engine
  (Imagery & Point Cloud)
- Feature Engine
  (Vectors)

Prime2 & DAMA
(Data Governance)



- Master Data Management
- Master Data Orchestration

Authoritative Features

Generate Product

MRDS
(Multi-Resolution
Data Store)



Workflow/Products

- Carto Engine
  (generalisation)
- Product Engine

Deliver Product

MapGenie
GeoHive
CRISP

API
API Store
Products & Services
map genie at your service
GeoHive

- System of Engagement

Outputs

Classification: Controlled

Project Purpose, Vision & Mission

Purpose

To capture and maintain Tailte Eireann real-world-object model

To enhance the accuracy and currency of our data to conform to the new National Map Specification

To transform our Technology, Workforce and Processes to deliver and maintain on the new National Map Specification



Vision

Transformation to create a new National Map from which everyone benefits from the power of location



Mission

Continually improving our **operational efficiency** while maintaining quality and trust

Sustainable change focused on long term value not just short-term returns

Growing impact through more users making effective and efficient use of location



Classification: Controlled

Project Overview

The objective of this project is to implement the findings from the initial project *Devise and plan for the implementation of a new National Map Specification*. This can be broken down into 4 key areas, across 4 work packages:

- **Data**
- **Process**
- **Technology**
- **People**

- W.P. 1: Target Operating Model Assessment
- W.P. 2: Target Operating Model Implementation
- W.P. 3: Antiquities
- W.P. 4: Building Height

The three key componence for the National Map Specification are as follows:

- The real-world-objects Tailte Éireann will capture & maintain
- The accuracy statement for all objects within the National Map
- The currency statement for all objects within the National Map

Classification: Controlled

National Map Specification Changes

	Existing Data Model		Target Data Model	
Class	Form Count	Form/Function Count	Form Count	Form/Function Count
ANTIQUITY*	n/a	322	n/a	322
ARTIFICIAL	3	78	28	43
BLP	n/a	n/a	n/a	n/a
BUILDING	60	233	54	111
BUILDING_GROUP	7	7	0	0
BUILDING_UNIT	14	36	20	21
DIVISION	10	34	10	10
EXPOSED	16	40	10	10
LOCALE	39	148	18	29
RAIL_NETWORK_SEGMENT**	n/a	n/a	n/a	n/a
RAIL_POINT	7	8	4	5
SERVICE_LINE	5	34	3	7
SITE	110	352	46	66
SITE_POINT	4	5	0	0
STRUCTURE	114	239	42	50
VEGETATION	14	57	16	30
WATER	33	36	22	23
WATER_POINT	12	34	12	12
WATER_SINGLE_STREAM	1	1	1	1
WAY	37	134	23	69
WAY_GDF2	25	87	12	41
WAY_POINT	19	19	7	7
Total	**530**	**1582**	**328**	**857**

*ANTIQUITY related objects to be reclassified as part of project

**RAIL_NETWORK_SEGMENT currently has no Form/Function classification but will be added as part of project

1,582 object combinations

857 object combinations

Classification: Controlled

Data Accuracy

1m accuracy as a national specification with no urban/rural divide can be achieved using the latest surveying methods

Using existing surveying methods within urban areas allows for 0.75m accuracy

1 metre

National Map Specification

95% of verifiable features are captured within 1 metre of their real world position

In comparison with mapping agencies across Europe a 1m accuracy would be a leading national specification.

1m accuracy requirement is for topographic mapping, not engineering grade maps

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Classification: Controlled

Data Currency

Data Acquisition Group 1

5 years

Objects are captured as part of the normal surveying process flows. These objects use remote sensed information as a primary source

National Map Specification features will have a currency of less than 5 years

All objects that are defined by the National Map Specification are captured and maintained to this currency

Data Acquisition Group 2

1 year

Identify and capture significant objects, or major infrastructure which may reasonably be expected to attain a high profile in the public consciousness

National Map Specification defined features below will have a currency of less than 1 year

- Residential and Commercial Buildings (with an address)
- Motorways, National Roads
- Railways, Light Trains/Trams
- Bridges associated with above
- Ports and Marinas (including inland)
- Airports
- Energy Infrastructure
- Water treatment plants, waste treatment plants
- Military sites associated to new buildings

Data Acquisition Group 3

Process Dependent

Provide for acquisition of data to accommodate defined legislative, regulatory or public service processes

National Map Specification features will have a currency as defined by the process

- Electoral Boundaries e.g. Local Electoral Areas changes
- Statutory Boundaries e.g. reclaimed land expansion of County Boundary
- Place-names and Ancient Features (antiquities) e.g. new Sites and Monuments Record (SMR) entry

Classification: Controlled

What will change?

We will transform our Technology, Workforce and Processes to deliver and maintain the new National Map Specification

- Reduce time to capture for survey staff
- Standardise survey methodologies



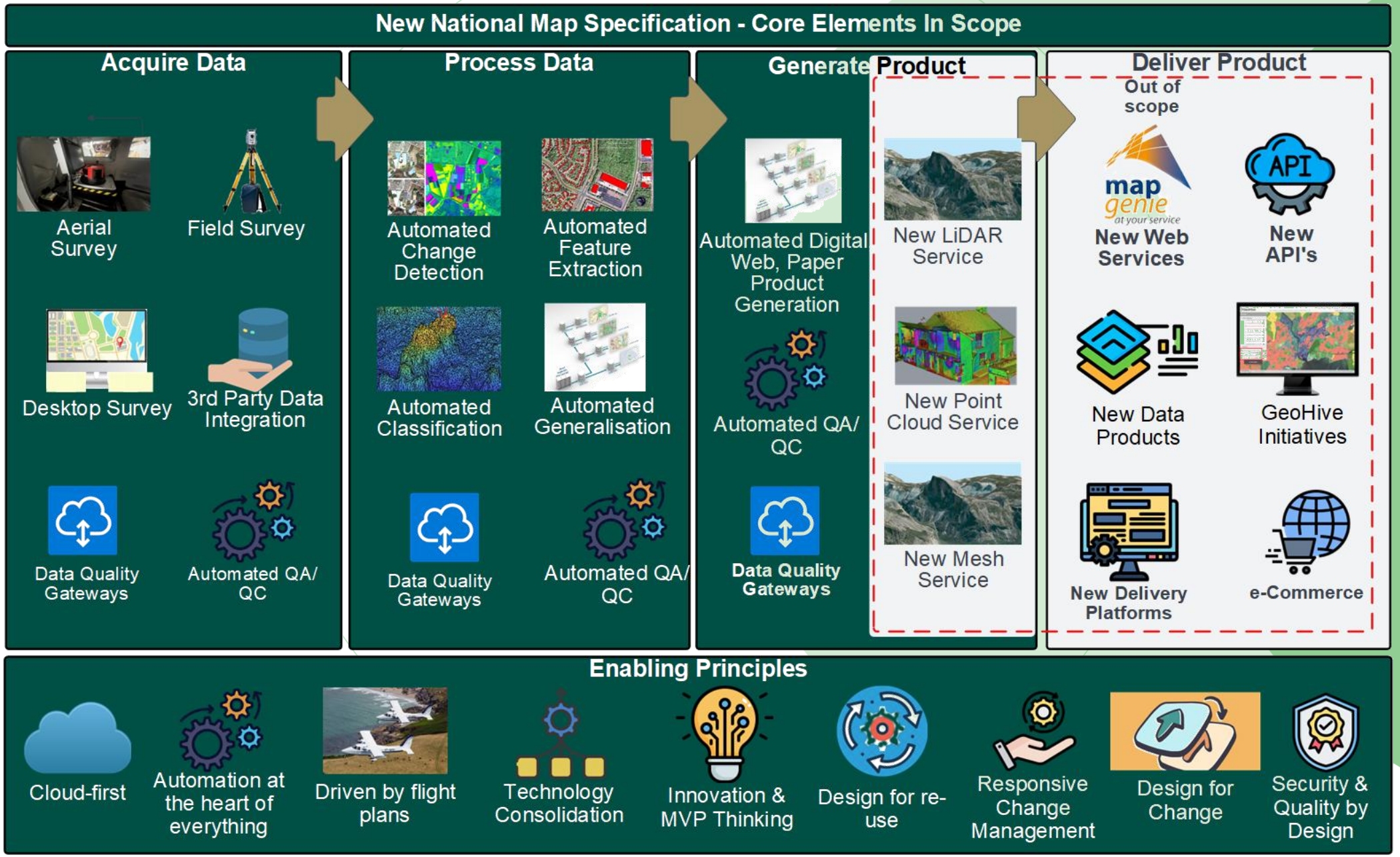
- New accuracy statement
- New currency statement
- Less complex data products for Tailte Éireann customers to consume

- Reduce technical debt to streamline data collection and processing
- Consolidate software and licenses to reduce cost
- Rationalise technology platform

- New roles and skills to maintain the national map
- Resource recruitment plan

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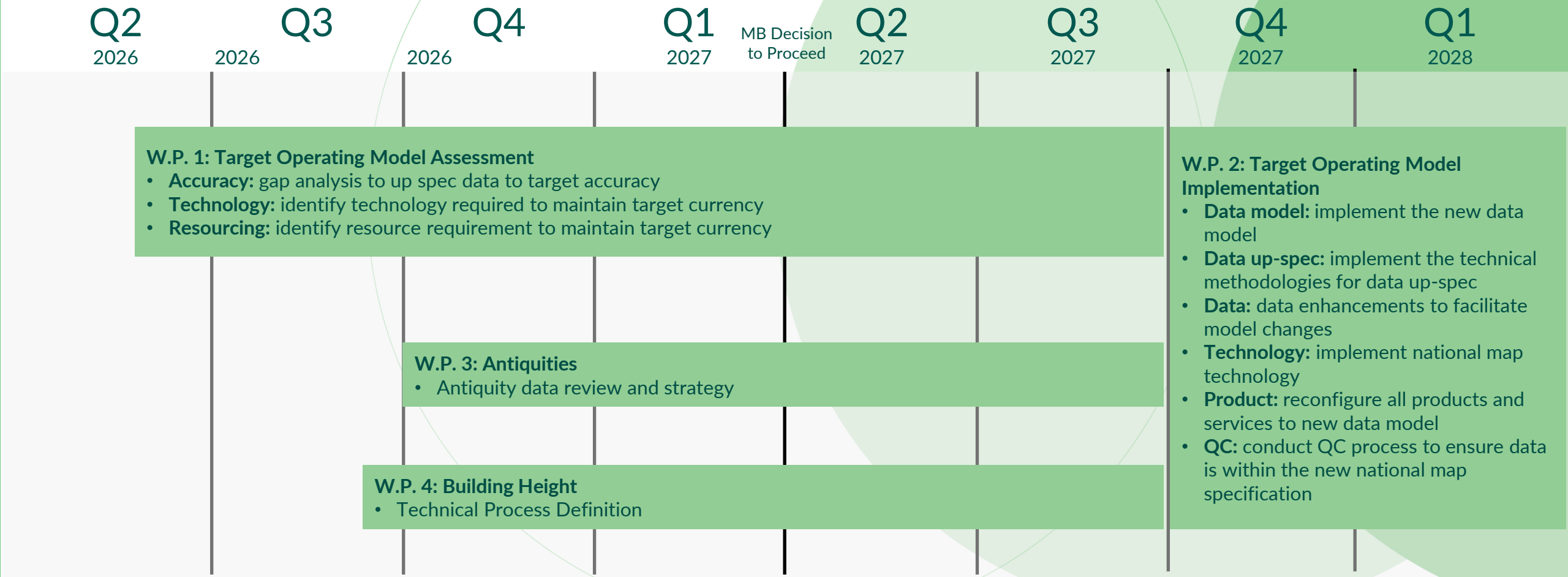
The Scope



Classification: Controlled

Implementation Plan

The new National Map Specification implementation will require a program of work consisting of a series of Work Packages



Classification: Controlled



Thank you

Tailte Éireann

Clárúchán, Luacháil, Suirbhéireacht
Registration, Valuation, Surveying